

Applicant: Arnold Schneider
Serial No.: 10/826,857
Date: April 21, 2005

REMARKS

Reconsideration of the application is respectfully requested in view of the amendments defined herein and the following remarks.

Applicant's invention discloses an apparatus for joining material webs using an ultrasonic horn. At each end of the horn or rotating roller is an amplitude transformer and a converter, driving the ends of the horn. An anvil is located opposite the rotating roller.

Claims 1, 4-7, 10 and 13-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nayar et al 5,707,483 in view of Couillard et al 6,454,890. The Examiner recognizes that Nayar '483 does not have an anvil, transformer, or converter but suggests that it would be obvious to add these components from Couillard '890. The horn structure in Nayar '483 has an input end and an axial opening at the other and utilizes particularly sized and placed undercuts to modify the amplitude of the horn. Couillard '870 discloses a rotating horn with a drive mechanism located at the input end. Applicant submits that it would not be obvious in view of Couillard '870 to add an amplitude transformer and converter to both axial ends of the horn in Nayar '483, thus the Examiner has not made a prima facie case of obviousness to support the rejection under §103.

The Examiner also recognizes that Nayar '483 discloses a horn length equal to half of a wavelength. However, Nayar '483 does not disclose a welding surface of a horn that is greater than a lambda-half wavelength. Applicant believes that it would not be obvious in view of Couillard '870, which also discloses a smaller operating width, to utilize a rotating roller with a length greater than a lambda-half wave and therefore does not constitute a valid basis for the rejection under §103.

Applicant has more specifically defined the invention in claim 1 to define the fact that a transformer and at least one converter placed at each end of the rotating roller, resulting in the rotating roller being driven at both ends. The invention in claim 1 also defines the length of the rotating roller as a multiple of lambda-half wave. The cited references do not render obvious the concept of a

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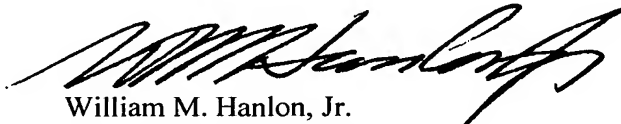
rotating roller of a length greater than a lambda-half wave that is driven on both axial ends. Reconsideration of this rejection under §103 is requested.

Claim 2-3, 8-9 and 11-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nayar et al 5,707,483 in view of Mlinar et al 5,976,316. Mlinar is relevant only for its disclosure of the implementation of radial bearings in a mounting system for an ultrasonic element. The combination of Nayar '483 and Mlinar '316 does not disclose a rotating roller of a length greater than a lambda-half wave that is driven on both axial ends. Reconsideration of this rejection under §103 is requested.

For the reasons set forth above, it is respectfully submitted that Applicant's invention as set forth in claims 1, 2 and 4-22 is not rendered obvious by the cited references. It is respectfully submitted that claim 1, 2 and 4-22 are in condition for allowance; a notice of which is respectfully requested.

Respectfully submitted,

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